![Fujitsu logo]

High-Speed Net Connect (HNC)

Version 6.3A
January 2020

Release Notice

1   General information

This Release Notice is a summary of the major extensions, requirements, and operating information for HNC V6.3A in Fujitsu Server BS2000 SE710/SE700B/ SE700 and Fujitsu Server BS2000 SE500B/SE500.

The contents correspond to the release level of January 2020.

The current release corresponds to the following delivery releases:
HNC V6.3A0501   Release 12.2019

The information in the Release Notices for the following delivery units should also be noted:
- M2000 V6.3A
- OSD/XC V10.0, OSD/XC V11.0B
- VM2000 V11.5

This and other current release notices are available on the SoftBooks DVD and online under: http://bs2manuals.ts.fujitsu.com/.

If one or more of the previous upgrades are skipped when this version is used, then the information in the release notices (or README files) for these previous versions must also be taken into account.

1.1   Ordering

The HNC V6.3A software is supplied preinstalled on the HNC (as part of the server unit /390 or ordered individually) and cannot be ordered separately.

1.2   Delivery

The HNC software is a component of an SE server with SU /390. It is pre-installed on the HNC on delivery or installed by Fujitsu service engineers on HNC that have already been delivered.

The software files for HNC V6.3A are delivered in line with the hardware delivery as DVD media. The MAC addresses required for the HNC are supplied on the license CD.

1.3   Documentation

The documentation for the SE servers comprises the following components:

➤ SE-specific manuals that describe the concepts and operation of servers in the SE line.
- Fujitsu Server BS2000 SE Series Operation and Administration
- Fujitsu Server BS2000 SE Series Quick Start Guide
- Fujitsu Server BS2000 SE Series Security Manual

➤ White Paper
- Fujitsu Server BS2000 SE Series Cluster solutions for SE servers

➢ Operating Manual SE server comprising of several modules
- Fujitsu Server BS2000 SE Series basic operating manual
- Fujitsu Server BS2000 SE Series operating manual server unit /390
- Fujitsu Server BS2000 SE Series operating manual server unit x86
- Fujitsu Server BS2000 SE Series operating manual additive components

These manuals are included on the documentary DVD of the supplied media set

The documentation is also available in the Internet under:
https://bs2manuals.ts.fujitsu.com/index_en
The current versions of this and other Release Notices are also available there.

The BS2000 documentation is available on DVD, in German and English, under
the title **BS2000 SoftBooks**.

2 Software extensions

HNC V6.3A is the further development of the existing HNC version V6.2A SP1 and offers the following extensions and enhancements over the previous version:

Operability (manageability)

- **Display HW status of the units in the SE Manager**
  In the SE Manager, detailed HW status information (sensor data) is displayed for the HNC.

- **Overview software version and add-ons in SE Manager**
  The SE Manager displays the SW statuses in a central overview for the HNC.

- **Unit Monitoring and Extended Eventing**
  The HNCs are monitored for system resources and SW error states. For bottlenecks and SW errors, the unit status in the SE Manager is set to WARNING and the reasons are displayed as a tooltip. In addition, teleservice calls and events are generated.

- **Alarm Management: Component Selection**
  In the alarm management of the SE Manager, the configuration of mail and snmp receivers the triggering component (e.g., HNC) is selectable.

Support of new hardware (HW Lifecycle):

- **Support of the new SE710 server**
  The FC connection of the HNC M3 to the server unit is done via its 16 Gbit/s FC SCSI channels

- **Support Primergy RX2530 M5 as HW base for HNC**
  The PRIMERGY model RX2530 M5 (model designation: "SE SERVER HNC M3") is supported as the new HW base for HNC.

- **Support of a 16 Gbit/s FC-SCSI**
  The HNCs with the model designation "SE SERVER HNC M3" are equipped with 16 Gbit/s FC-SCSI controllers.

HNC is exclusively used on the SE HNCs of the Fujitsu Server BS2000 SE710/SE700/SE700B and Fujitsu Server BS2000 SE500B/SE500.

3   Technical information

3.1   Resource requirements

Two disks, which occupy slots 0 and 1, are required for the installation of the system. These are switched together to form a hardware mirror, on which five virtual disks are configured. The SW mirror function enables a system status to be frozen and then to be activated by Service after software errors.

SE SERVER HNC M1 / SE SERVER HNC M2:

VD	MU	Use
VD0	50 GB	ROOT, VAR, SWAP
VD1	50 GB	ROOT (Installation), CRASH
VD2	50 GB	ROOT standby, VAR standby, ARCHIVE
VD3	100 GB	DATA
VD4	16 GB	Configuration Raw Device (CRD)

SE SERVER HNC M3:

VD	HNC	Use
VD0	80 GB	ROOT, VAR, SWAP
VD1	80 GB	ROOT (Installation), CRASH
VD2	80 GB	ROOT-Standby, VAR-Standby, ARCHIVE
VD3	140 GB	DATA
VD4	30 GB	Configuration Raw Device (CRD)

An SE HNC is equipped in its basic configuration with a 32 GB memory
(2* 16GB DDR3 modules).

3.2   SW configuration

BS2000 OSD/XC in Native and VM2000 operation on SU700(B), SU500(B)

- BS2000 native
    - OSD/XC V11.0B, V11.0A, V10.0

- VM2000 V11.5
    - OSD/XC V11.0B, V11.0A as a monitor system
    - OSD/XC V11.0B, V11.0A or V10.0 as a guest system

- Precondition for Live Migration (LM):
    - OSD/XC V11.0B, V11.0A or V10.0
    - VM2000 V11.5 if using VM2000 mode
      (LM on SU /390 only possible in VM2000 mode)

Support for OSD / XC V10.0A and VM2000 V11.0A is available as of correction package 2018

BS2000 OSD/XC in Native and VM2000 operation on SU710

- BS2000 native
  - OSD/XC V11.0B

- VM2000 V11.5
  - OSD/XC V11.0B as a monitor system
  - OSD/XC V11.0B or OSD/XC V10.0 as a guest system

Support is available from Service Pack 19.1

Linux is not released for use on HNC
The Linux appliance HNC is a scaled-down Linux system. This is why the use of Linux on HNC is not released for customer applications.

3.3   Product installation

With delivery of the Server Unit / 390 1-4 HNCs become part of the Net-Unit delivered pre-installed. Any required new correction levels for the HNC are supplied as part of the hardware service contract and are installed by the service technician responsible for you.

3.4   Product use

- **HNCs are operated via the SE Manager**,
  a web-based graphical user interface for managing the SE servers. Local access is possible via a web browser running in the M2000 on the rack console integrated in the SE rack.

  Remote operation and administration takes place via PC workstations that can access the SE Manager via a web browser. The Release Notice for M2000 V6.3A contains information about supported browsers.

- **Setting the BS2000 host name**
  The BS2000 host name must contain at least four characters. In principle, the following special characters are supported: **#, @**
  The use of special characters should be avoided where possible.

- **Connecting the net unit to the customer LAN**
  Customers should not configure a spanning tree protocol on the LAN switch for uplink ports in public networks (MANPU, MONPU, DANPU<nn>).

- **Connecting the HNC to the SE server**
  Only FC (FibreChannel) direct connections with 8 Gbit/s and for SE710 with 16 Gbit/s are supported for the connection to the /390 server units. The default connection is via a single path.

  We recommend for 10 Gbit/s Ethernet connections the use of a second FC connection to the second FC port of the HNC as this is the only way to attain full throughput. Furthermore, a maximum of 30 parallel network connections can be operated on one FC connection on SE700/SE700B/SE500/ SE500B Server; in the case of 8 or more guest systems or multiple configured networks, a second FC connection from the HNC to the server is recommended.

3.5   Obsolete (and discontinued) functions

- Software configuration:
  - o OSD / XC V9.5 is no longer supported

3.6   Incompatibilities

- None

3.7   Restrictions

- None

3.8   Procedure in the event of errors

In order to successfully diagnose and eliminate software problems, sufficient error documentation must be created and saved as early as possible.

If possible, error report documents should be supplied in the form of files so that they can be processed with diagnostic tools. Reproducible errors are to be described accurately so that the error can be generated.

SEM:
If an error situation occurs, the generation of diagnostic data can be initiated via the SE manager on the management unit by way of the "Diagnostics" tab.
Hardware -> Server (SE<model>) -> <Name> (HNC) -> Service -> Diagnostics

The diagnostic data file is a compressed tar archive and contains important logging, trace and configuration files of the unit. The administrator may download the diagnostic data archive to his PC and send it by e-mail, or the file can be transferred directly from the service via AISConnect via FileTransfer.

In the case of problems that are visible in the SE Manager, the following diagnostic documents should also be prepared depending on the situation:
- meaningful screenshots
- relevant browser console output (copies or screen dumps)

Refer to the release note for M2000 V6.3A for more information on creating diagnostic data.
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BS2000:
- SLED (in case of BS2000 system crash or if the BS2000 system locks up)
- for input/output problems or device error messages HERSFILE and possibly IOTRACE

4   Hardware requirements

HNC V6.3A is an integral part of the net unit of a BS2000 SE Server.

The software version HNC V6.3A0501 is used on the following hardware models:

> SE Server HNC M1
> SE Server HNC M2
> SE Server HNC M3

5   Firmware versions

The following minimum firmware levels should be used on HNC. They are installed during system installation in the factory. Any new firmware levels that may be required are provided as part of the hardware service contract and installed by the service technician responsible for you.

SE SERVER HNC M1 (RX200-S8)	FW-Version
BIOS	V4.6.5.4 - R1.20
iRMC	9.20F_sdr3.62
RAID-Controller SAS 6G 5/6 512MB (D2616)	2.130.403-4660
FC-Controller LPe12002	2.02A1

SE SERVER HNC M2 (RX2530-M1-L)	FW-Version
BIOS	V5.0.0.9 R1.39
iRMC	9.21F_sdr3.13
RAID-Controller EP420i	4.680.00-8417-1.0.0
FC-Controller LPe12002	2.02A3
FC-Controller LPe16002	11.2.210.13

SE SERVER HNC M3 (RX2530-M5)	FW-Version
BIOS	V5.0.0.14 R1.15.0
iRMC	2.50P_sdr3.13
SAS RAID Ctrl PRAID EP420i	4.680.00-8417-1.0.0
Fibre Channel LPe31002	12.0.261.33
LAN PLAN EP X710-DA4 4x10Gb SFP+	1.32.20.30
LAN PLAN EP X710-T4 4x10GBASE-T	1.32.20.30